

DATASHEET	Pages : 09 Reference : 010056
GAPFILLER 470 – 862 MHz	Application of date : 30/03/2016

❖ **General description :**


The Gapfillers are designed to broadcast terrestrial digital TV multiplex bandwidth of 6, 7 or 8 MHz in the UHF band (470-862 MHz).


- ✓ Indoor or Outdoor use,
- ✓ Signal Processing (Filtering amplification),
- ✓ Several outputs available powers,
- ✓ Echo canceller -15 dB,
- ✓ Automatic digital precorrection,
- ✓ channel filter included,
- ✓ Remote control by GPRS or SMS,
- ✓ Fast and easy deployment.



DVB & ISDB Gapfiller Outdoor

✚ Technical characteristics					
Type	Single box		Dual box		
	1W	5W	10W	2x1W	2x5W
Standards	DVB-T/H/T2 & ISDB-T				
Frequency	470 – 862 MHz				
Bandwidth	8, 7 or 6 MHz				
Offset	-3, -2, -1, +1, +2, +3 x 1/6 MHz				
Return loss	-17 dB (1,33 :1)				
Input Level	-72 to -32 dBm				
Output level	1 Wrms	5 Wrms	10 Wrms	1 Wrms	5 Wrms
Shoulders	≥ 37dB (≥ 39dB typ.)				
MER without Echoes	≥ 30dB (≥ 32dB typ)				
MER with Echoes +15 dB	≥ 25 dB				

 Echo canceller characteristics		
	Standard Mode	Enhanced Mode
Gain – Isolation ratio	-5 dB	-15 dB
Correction efficiency	30 dB	
Cancellation width	4 μ s	2 μ s
Group delay	< 7.1 μ s	< 10.2 μ s
Gain regulation	Automatic decrease of the gain to guarantee a good transmission signal if the reception level is too low or deterioration of the antennas isolation	

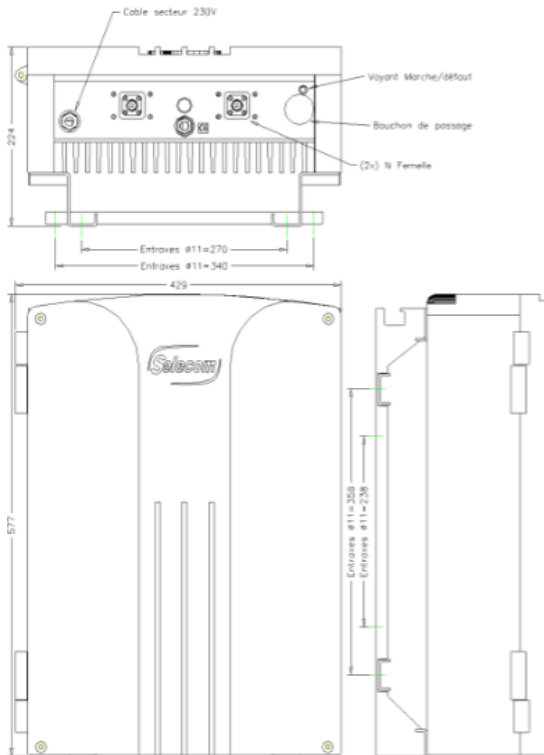
 Electrical & Mechanical characteristics					
	1W	5W	10W	2x1W	2x5W
contrôle and monitoring	WEB, SNMP Remote control by GPRS (optional) SELECOM Network Management Station (optional)				
Architecture	Outdoor box				
Dimensions	H582xL429xP224 mm ³		H582xL426xP352 mm ³		
Weight	28 kg		49 kg		
Fastening	Wall or on mast				
Ingress protection	IP65				
Cooling	Natural convection				
power supply range	85-265 VAC				
Power consumption	40 W	55 W	150 W	66 W	110 W
Connectors	N-female				
Temperature	-20° to +45°				



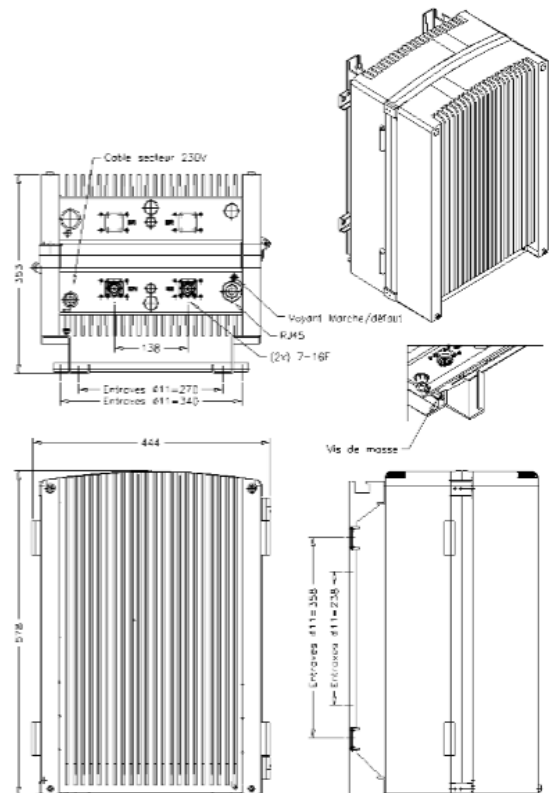
Single DVB-T/H/T2 & ISDB-T
Gapfiller 1W-5 W



Dual DVB-T/H/T2 & ISDB-T
Gapfiller 10 W



Version 1W & 5W



Version 10W

Multi DVB-T/-H/-T2 & ISB-T Gapfiller

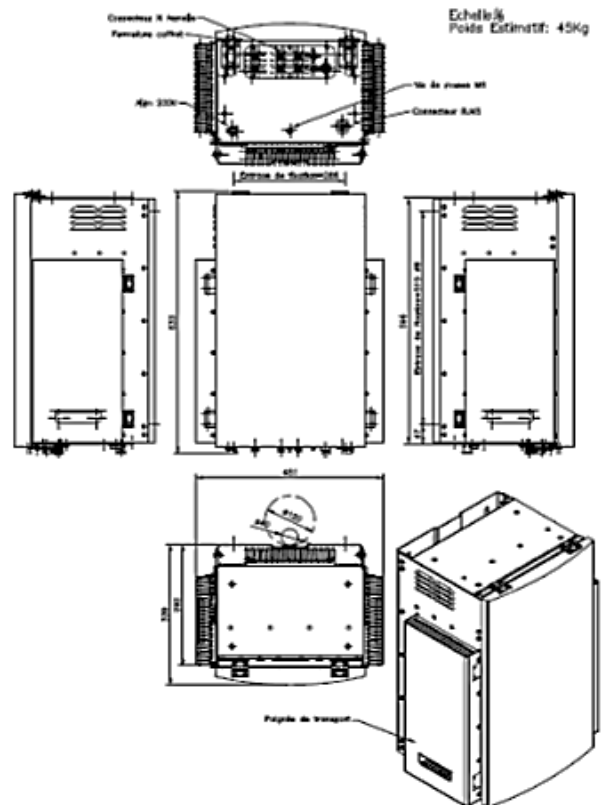
✚ Technical characteristics				
Type	Nx1W For a coverage from 100 Km ²		Nx100mW For a coverage from 4 000 m ² up to 20 km ²	
	1 to 3 Channels	4 to 6 Channels	1 to 3 Channels	4 to 6 Channels
Standards	DVB-T/-H/-T2 & ISDB-T			
Frequency	470 – 862 MHz			
Bandwidth	8, 7 or 6 MHz			
Offset	-3, -2, -1, +1, +2, +3 x 1/6 MHz			
Return loss	-17 dB (1,33 :1)		-14 dB (1,33 :1)	
Input level	-72 to -32 dBm		-72 to -20 dBm	
Output level/channel	1W	0.5W	80 mW	50mW
Shoulders	≥ 37dB (≥ 39dB typ.)		≥ 36dB (≥ 39dB typ.)	
MER	≥ 30dB (≥ 32dB typ)			

✚ Echo canceller characteristics		
	Standard mode	Enhanced mode
Gain – Isolation Ratio	-5 dBc	-15 dBc
Correction efficiency	30 dB	
Cancellation width	4 μs	2 μs
Group delay	< 7.1 μs	< 10.2 μs
Gain regulation	Automatic decrease of the gain to guarantee a good transmission signal if the reception level is too low or deterioration of the antennas isolation	

✚ Mechanical & Electrical Characteristics		
	Nx1W	Nx100mW
Control and monitoring	WEB, SNMP Remote control by GPRS (optional) Selecom Network Management Station (optional)	Contrôle à distance par SMS (option) Station de gestion du réseau (option)
Architecture	Outdoor Box	
Dimensions	630 mmx450mmx340mmm	
Weight	38 kg	30 kg
Fastening	Wall or on mast	
Ingress protection	IP43	
Cooling	Natural convection	
Power supply range	85-265 VAC	
Power consumption	50 W	12 W
Connectors	N-female	
Temperature	-20° to +45°	



Multi DVB-T/H/T2 & ISDB-T
Gapfiller Nx1W



DVB-T/-H/-T2 & ISDB-T Gapfiller Station

✚ Technical characteristics			
	1W	5W	10W
Standards	DVB-T/-H/-T2 & ISDB-T		
Frequency	470 – 862 MHz		
Bandwidth	8, 7 or 6 MHz		
Offset	-3, -2, -1, +1, +2, +3 x 1/6 MHz		
Return loss	-17 dB (1,33 :1)		
Input level	-72 to -32 dBm		
Output level/channel	1 Wrms	5 Wrms	10 Wrms
Shoulders	≥ 37dB (≥ 39dB typ.)		
MER without echoes	≥ 30dB (≥ 32dB typ)		
MER with Echoes	≥ 25 dB		

✚ Echo-canceller characteristics		
	Standard mode	Enhanced Mode
Gain – Isolation ratio	-5 dBc	-15 dBc
Correction efficiency	30 dB	
Cancellation width	4 μs	2 μs
Selectivity	50 dB	80 dB
Group delay	< 7.1 μs	< 10.2 μs
Gain regulation	Automatic decrease of the gain to guarantee a good transmission signal if the reception level is too low or deterioration of the antennas isolation	

✚ Mechanical & Electrical characteristics			
	1W	5W	10W
Control & monitoring	WEB, SNMP		
Architecture	Outdoor		
Dimensions	1500 mm x 600 mm x 600 mm		
Weight	220 Kg (Full equipment with 6 channels)		
Ingress protection	IP65		
Cooling	Fan		
Power supply range	85-265 VAC/50-60 Hz		
Power consumption *	40W	55W	150W
Connectors	N-female		
Temperature	-20° to +45°		

*Consumption is multiplied by the number of channels (max 6)

Gapfiller Station



Rack version Gapfiller

✚ Technical characteristics	
Type	Rack
Standards	DVB-T/-H/-T2 & ISDB-T
Frequency	470 – 862 MHz
Mode	SFN
	MFN
Standard Transposer mode is optional	
Bandwidth	8, 7 or 6 MHz
Offset	-3, -2, -1, +1, +2, +3 x 1/6 MHz
Return loss	-17 dB (1,33 :1)
Input level	-72 to -32 dBm
Shoulders	≥ 36dB (≥ 39dB typ.)
MER without echoes	≥ 30dB (≥ 32dB typ)
MER with Echoes	≥ 25 dB

✚ Echo-canceller characteristics		
	Standard mode	Enhanced mode
Gain – Isolation ratio	-5 dB	-15 dB
Correction efficiency	30 dB	
Cancellation width	4 μs	2 μs
Group delay	< 7.1 μs	< 10.2 μs
Gain regulation	Automatic decrease of the gain to guarantee a good transmission signal if the reception level is too low or deterioration of the antennas isolation	

✚ Mechanical & electrical characteristics			
	1W	5W	10W
Control & monitoring	WEB, SNMP Remote control by GPRS Selecom Network Management Station (optional)		
Architecture	Indoor		
Dimensions	2U		
Weight	12 kg		
Fastening	19" rack		
Cooling	Forced convection (Internal fan)		
Power supply range	85-265 VAC or 48 VDC		
Power consumption	110W	124W	180W
Connectors	N-female		
Temperature	+5° to +45°		

